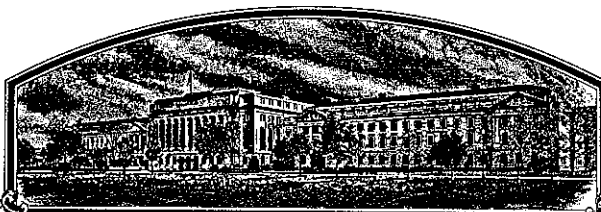


No.

8600023



THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

Delta and Pine Land Company

Whereas, THERE HAS BEEN PRESENTED TO THE

Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED NOVEL VARIETY OF SEXUALLY REPRODUCED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF *eighteen* YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, IMPORTING IT, OR EXPORTING IT, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT (T. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

SOYBEAN

'Deltapine 566'

In Testimony Whereof, I have hereunto set my hand and caused the seal of the Plant Variety Protection Office to be affixed at the City of Washington, D. C. this 31st day of August in the year of our Lord one thousand nine hundred and eighty-six.

Attest

Bennett H. Evans
Commissioner
Plant Variety Protection Office
Agricultural Marketing Service

Richard E. Lyng
Secretary of Agriculture



U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE

FORM APPROVED: OMB NO. 0581-0055

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE

(Instructions on reverse)

Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). Information is held confidential until certificate is issued (7 U.S.C. 2426).

| | | | |
|---|---|--|---|
| 1. NAME OF APPLICANT(S) Delta and Pine Land Company | | 2. TEMPORARY DESIGNATION Deltapine 566 | 3. VARIETY NAME Deltapine 566 |
| 4. ADDRESS (Street and No. or R.F.D. No., City, State, and Zip Code) Scott, Mississippi 38772 | | 5. PHONE (Include area code) 601-742-3351 | FOR OFFICIAL USE ONLY VPPO NUMBER 8600023 |
| 6. GENUS AND SPECIES NAME <u>Glycine max</u> | 7. FAMILY NAME (Botanical) Leguminosae | | FILING DATE <u>November 18, 1985</u> TIME <u>2:00</u> <input type="checkbox"/> A.M. <input checked="" type="checkbox"/> P.M. |
| 8. KIND NAME Soybean | 9. DATE OF DETERMINATION November 1977 | | FEES RECEIVED AMOUNT FOR FILING \$ <u>1800.</u> DATE <u>November 18, 1985</u> AMOUNT FOR CERTIFICATE \$ <u>200.00</u> DATE <u>July 23, 1986</u> |
| 10. IF THE APPLICANT NAMED IS NOT A "PERSON," GIVE FORM OF ORGANIZATION (Corporation, partnership, association, etc.) Corporation | | | 12. DATE OF INCORPORATION |
| 11. IF INCORPORATED, GIVE STATE OF INCORPORATION Delaware | | | |
| 13. NAME AND ADDRESS OF APPLICANT REPRESENTATIVE(S), IF ANY, TO SERVE IN THIS APPLICATION AND RECEIVE ALL PAPERS Harry B. Collins Delta and Pine Land Company Scott, Mississippi 38772 | | | |

PHONE (Include area code):

| | | | |
|--|--|--|--|
| 14. CHECK APPROPRIATE BOX FOR EACH ATTACHMENT SUBMITTED | | | |
| a. <input checked="" type="checkbox"/> Exhibit A, Origin and Breeding History of the Variety (See Section 52 of the Plant Variety Protection Act.) | | | |
| b. <input checked="" type="checkbox"/> Exhibit B, Novelty Statement. | | | |
| c. <input checked="" type="checkbox"/> Exhibit C, Objective Description of Variety (Request form from Plant Variety Protection Office.) | | | |
| d. <input checked="" type="checkbox"/> Exhibit D, Additional Description of Variety. | | | |
| e. <input checked="" type="checkbox"/> Exhibit E, Statement of the Basis of Applicant's Ownership. | | | |
| 15. DOES THE APPLICANT(S) SPECIFY THAT SEED OF THIS VARIETY BE SOLD BY VARIETY NAME ONLY AS A CLASS OF CERTIFIED SEED? (See Section 83(a) of the Plant Variety Protection Act.) <input type="checkbox"/> Yes (If "Yes," answer items 16 and 17 below) <input checked="" type="checkbox"/> No | | | |
| 16. DOES THE APPLICANT(S) SPECIFY THAT THIS VARIETY BE LIMITED AS TO NUMBER OF GENERATIONS? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | | 17. IF "YES" TO ITEM 16, WHICH CLASSES OF PRODUCTION BEYOND BREEDER SEED? <input type="checkbox"/> Foundation <input type="checkbox"/> Registered <input checked="" type="checkbox"/> Certified | |
| 18. DID THE APPLICANT(S) PREVIOUSLY FILE FOR PROTECTION OF THE VARIETY IN THE U.S.? <input type="checkbox"/> Yes (If "Yes," give date) <input checked="" type="checkbox"/> No | | | |
| 19. HAS THE VARIETY BEEN RELEASED, OFFERED FOR SALE, OR MARKETED IN THE U.S. OR OTHER COUNTRIES? This variety was first sold in the United States on March 22, 1985. It has only been sold in the United States. <input checked="" type="checkbox"/> Yes (If "Yes," give names of countries and dates) <input type="checkbox"/> No | | | |
| 20. The applicant(s) declare(s) that a viable sample of basic seeds of this variety will be furnished with the application and will be replenished upon request in accordance with such regulations as may be applicable. The undersigned applicant(s) is (are) the owner(s) of this sexually reproduced novel plant variety, and believe(s) that the variety is distinct, uniform, and stable as required in Section 41, and is entitled to protection under the provisions of Section 42 of the Plant Variety Protection Act. Applicant(s) is (are) informed that false representation herein can jeopardize protection and result in penalties. | | | |

SIGNATURE OF APPLICANT

DATE

SIGNATURE OF APPLICANT

DATE

EXHIBIT A

DELTA AND PINE LAND COMPANY'S APPLICATION FOR DELTAPINE 566Origin and Breeding History of the Variety

Deltapine 566 originated from the cross N66-1136 x D67-4601. N66-1136 was a North Carolina breeding line. D67-4601 was a breeding line which originated at the Delta Branch Experiment Station at Stoneville, Mississippi. D67-4601 eventually became the variety Tracy. The pedigree method of breeding was employed in selecting this variety. In 1977, an F4 plant row was bulked for yield testing in 1978. Concurrent yield testing and increasing of this line, then known as experimental strain Deltapine 566, was carried out. Observations and roguing were conducted in subsequent years on each increase generation. Based on these observations, Deltapine 566 is stable for all observable characteristics.

EXHIBIT B

DELTA AND PINE LAND COMPANY'S APPLICATION FOR DELTAPINE 566Novelty Statement

Deltapine 566 is most similar to Tracy M. The principle differences between Deltapine 566 and Tracy M are date of maturity and protein content. Deltapine 566 has been an average of four (4) days later than Tracy M in three years of testing in Delta and Pine Land Company replicated field tests in the Mid-South (Table B I). In replicated field tests conducted by Mississippi State University at eight (8) locations in 1984, Deltapine 566 (October 14) was an average of eight (8) days later in maturity than Tracy M (October 6). The data for these tests are found in Tables D I 36, D I 37, D I 38, D I 39, D I 40, D I 41, D I 42, and D I 43. In replicated field tests conducted by Louisiana State University at seven (7) locations in 1984, Deltapine 566 (October 13) was an average of nine (9) days later in maturity than Tracy M (October 4). These data are found in Tables D I 44, D I 45, D I 46, D I 47, D I 48, D I 49 and D I 50. In replicated field trials conducted by the University of Georgia at five (5) locations in 1984, Deltapine 566 (October 11) was an average of six (6) days later in maturity than Tracy M (October 5). These data are found in Tables D I 51, D I 52, D I 53, D I 54 and D I 55.

Deltapine 566 exhibited an average protein content 1.3% higher than Tracy M when seed from replicated tests in different locations and years were analyzed (Table B I).

TABLE B I
AVERAGE DATA FOR 31 TESTS CONDUCTED IN MISSISSIPPI,
LOUISIANA AND TENNESSEE IN 1981, 1982, 1983 and 1984

| | <u>Deltapine 566</u> | <u>Tracy M</u> | <u>Difference</u> |
|--|----------------------|----------------|-------------------|
| Flower Color ^{1/} | W | W | None |
| Pubescence Color ^{2/} | T | T | None |
| Plant Height (cm) | 88.1 | 85.6 | +2.5 |
| Maturity Date | 10-26 | 10-22 | +4 |
| Lodging ^{3/} | 1.3 | 1.8 | -0.5 |
| Metribuzin Reaction ^{4/} | 1.3 | 1.9 | -0.6 |
| Foliage Color ^{5/} | 2.8 | 2.6 | +0.2 |
| Protein Content(%) | 42.2 | 40.9 | +1.3 |
| Oil Content(%) | 19.9 | 19.6 | +0.3 |
| Foliar Feeding Insect Damage ^{6/} | 2.0 | 2.2 | -0.2 |
| Stink Bug Damage ^{7/} | 1.0 | 1.8 | -0.8 |
| Weight gm/100 Seed | 14.9 | 15.1 | -0.2 |
| Seed Quality Rating ^{8/} | 2.0 | 2.2 | -0.2 |
| Seed Coat Luster ^{9/} | 4.1 | 4.3 | -0.2 |
| Seed Coat Color ^{10/} | 3.8 | 4.1 | -0.3 |
| Hilum Color | Bl | Bl | None |

1/ P = Purple
W = White

2/ T = Tawny
G = Gray

3/ 1 = No Lodging
5 = Severe Lodging

4/ 1 = Very Tolerant
5 = Plants Killed

5/ 1 = Very Light Green
5 = Very Dark Green

6/ 1 = No Feeding
5 = Completely Skeletonized

7/ 1 = No Seed Damage
5 = Severe Seed Damage

8/ 1 = Very Good Quality
5 = Very Poor Quality

9/ 1 = Very Shiny
5 = Very Dull

10/ 1 = Deep Yellow
5 = Light Yellow

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
LIVESTOCK, POULTRY, GRAIN & SEED DIVISION
BELTSVILLE, MARYLAND 20705

EXHIBIT C
(Soybean)

OBJECTIVE DESCRIPTION OF VARIETY
SOYBEAN (GLYCINE MAX)

INSTRUCTIONS: See Reverse.

| | |
|--|--|
| NAME OF APPLICANT(S) Delta and Pine Land Company | FOR OFFICIAL USE ONLY PVPO NUMBER 86000023 |
| ADDRESS (Street and No., or R.F.D. No.; City, State, and ZIP Code) Scott, Mississippi 38772 | VARIETY NAME OR TEMPORARY DESIGNATION 'DELTAPINE 566' r/s |

Place the appropriate number that describes the varietal character of this variety in the boxes below.

| | | | |
|--|---------------------------------------|---|--|
| 1. SEED SHAPE: <input type="checkbox"/> 1 = SPHERICAL <input type="checkbox"/> 2 = SPHERICAL FLATTENED <input type="checkbox"/> 3 = ELONGATE <input type="checkbox"/> 4 = OTHER (Specify) | | SHADE: <input type="checkbox"/> 1 = LIGHT <input type="checkbox"/> 2 = MEDIUM <input type="checkbox"/> 3 = DARK | |
| 2. SEED COAT COLOR: <input type="checkbox"/> 1 = YELLOW <input type="checkbox"/> 2 = GREEN <input type="checkbox"/> 3 = BROWN <input type="checkbox"/> 4 = BLACK <input type="checkbox"/> 5 = OTHER (Specify) | | 3. SEED COAT LUSTER: <input type="checkbox"/> 1 = DULL <input type="checkbox"/> 2 = SHINY | |
| 4. SEED SIZE <input type="checkbox"/> 1 <input type="checkbox"/> 5 GRAMS PER 100 SEEDS | | 5. HILUM COLOR: <input type="checkbox"/> 1 = BUFF <input type="checkbox"/> 2 = YELLOW <input type="checkbox"/> 3 = BROWN <input type="checkbox"/> 4 = GRAY <input type="checkbox"/> 5 = IMPERFECT BLACK <input type="checkbox"/> 6 = BLACK <input type="checkbox"/> 7 = OTHER (Specify) | |
| 6. COTYLEDON COLOR: <input type="checkbox"/> 1 = YELLOW <input type="checkbox"/> 2 = GREEN | | 7. LEAFLET SIZE (See Reverse): <input type="checkbox"/> 1 = SMALL <input type="checkbox"/> 2 = MEDIUM <input type="checkbox"/> 3 = LARGE | |
| 8. LEAFLET SHAPE: <input type="checkbox"/> 1 = OVATE <input type="checkbox"/> 2 = OBLONG <input type="checkbox"/> 3 = LANCEOLATE <input type="checkbox"/> 4 = ELLIPTICAL <input type="checkbox"/> 5 = OTHER (Specify) | | 9. LEAF COLOR (See reverse): <input type="checkbox"/> 1 = LIGHT GREEN <input type="checkbox"/> 2 = MEDIUM GREEN <input type="checkbox"/> 3 = DARK GREEN | |
| 10. FLOWER COLOR: <input type="checkbox"/> 1 = WHITE <input type="checkbox"/> 2 = PURPLE <input type="checkbox"/> 3 = OTHER (Specify) | | 11. POD COLOR: <input type="checkbox"/> 1 = TAN <input type="checkbox"/> 2 = BROWN <input type="checkbox"/> 3 = BLACK | |
| 12. POD SET: <input type="checkbox"/> 1 = SCATTERED <input type="checkbox"/> 2 = CONCENTRATED | | 13. PLANT PUBESCENCE COLOR: <input type="checkbox"/> 1 = GRAY <input type="checkbox"/> 2 = BROWN <input type="checkbox"/> 3 = OTHER (Specify) | |
| 14. PLANT TYPES (See Reverse): <input type="checkbox"/> 1 = SLENDER <input type="checkbox"/> 2 = BUSHY <input type="checkbox"/> 3 = INTERMEDIATE | | 15. PLANT HABIT: <input type="checkbox"/> 1 = DETERMINATE <input type="checkbox"/> 2 = INDETERMINATE <input type="checkbox"/> 3 = OTHER (Specify) | |
| 16. HYPOCOTYL COLOR: <input type="checkbox"/> 1 = GREEN <input type="checkbox"/> 2 = PURPLE | | 17. SEED PROTEIN: <input type="checkbox"/> 1 = A <input type="checkbox"/> 2 = B | |
| 18. NUMBER OF DAYS TO FLOWERING (Place a zero in first box (e.g. 0 9) when days are 9 or less.) <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | | 19. MATURITY GROUP: 1 = 00 2 = 0 3 = I 4 = II 5 = III 6 = IV 7 = V 8 = VI 9 = VII 10 = VIII <input type="checkbox"/> 8 | |
| 20. SIZE OF 10 DAY OLD SEEDLING GROWN UNDER CONSTANT LIGHT (Growth Chamber) AT 25° C. (Place a zero in first box (e.g. 0 2) when size is 9 mm. or less.) MM. LENGTH OF SEEDLING <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | | MM. LENGTH OF COTYLEDON <input type="checkbox"/> <input type="checkbox"/> | |
| MM. WIDTH OF COTYLEDON <input type="checkbox"/> <input type="checkbox"/> | | 21. DISEASE: (Enter 0 = Not Tested; 1 = Susceptible; 2 = Resistant) | |
| <input type="checkbox"/> BACTERIAL PUSTULE | <input type="checkbox"/> SOYBEAN CYST | <input type="checkbox"/> DOWNY MILDEW | <input type="checkbox"/> PURPLE STAIN |
| <input type="checkbox"/> FROGEYE | <input type="checkbox"/> STEM CANKER | <input type="checkbox"/> PHYTO-PHTHORA | <input type="checkbox"/> BROWN STEM ROT |
| <input type="checkbox"/> BUD BLIGHT | <input type="checkbox"/> WILDFIRE | <input type="checkbox"/> RHIZOCTONIA ROT | <input type="checkbox"/> OTHER (Specify) |
| <input type="checkbox"/> POD AND STEM BLIGHT | <input type="checkbox"/> ROOT KNOT | <input type="checkbox"/> TARGET SPOT | <input type="checkbox"/> BROWN SPOT |

22. INDICATE WHICH VARIETY MOST CLOSELY RESEMBLES THAT SUBMITTED.

| CHARACTER | NAME OF VARIETY | CHARACTER | NAME OF VARIETY |
|--------------|-----------------|-----------------------|-----------------|
| Plant shape | Tracy M | Petiole angle | Tracy M |
| Leaf shape | Tracy M | Seed size | Tracy M |
| Leaf color | Tracy M | Seed shape | Tracy M |
| Leaf surface | Tracy M | Seedling pigmentation | Tracy M |

23. GIVE DATA FOR SUBMITTED AND SIMILAR STANDARD VARIETY:

| VARIETY | NO. OF DAYS TO MATURITY | LODGING SCORE | PLANT HEIGHT | LEAF SIZE | | CONTENT | | AVERAGE NO. OF PODS PER PLANT | IODINE NO. |
|-------------------------|-------------------------|---------------|--------------|-----------|--------|---------|-------|-------------------------------|------------|
| | | | | Width | Length | Protein | Oil | | |
| Submitted | 10-26 | 1.3 | 88.1 | - | - | 42.2 | 19.9% | - | - |
| Name of similar variety | 10-22 | 1.8 | 85.6 | - | - | 40.9 | 19.6 | - | - |

INSTRUCTIONS

GENERAL: The following publications may be used as a reference aid for completing this form:

1. Scott, Walter O. and Samuel R. Aldrich, 1970, Modern Soybean Production, The Farmer Quarterly.
2. Norman, A. G., 1963, The Soybean: Genetics, Breeding, Physiology, Nutrition, Management.
3. McKie, J. W., and K. L. Anderson, 1970, The Soybean Book.

LEAF COLOR: Nickerson's or any recognized color fan may be used to determine the leaf color of the described variety. The following Soybean varieties may be used as a guide to identify the colors listed on the form.

| COLOR | VARIETY |
|--------------|----------|
| Light Green | "Ada" |
| Medium Green | "Wilkin" |
| Dark Green | "Swift" |

LEAF SIZE: The following varieties may be used as a guide to identify the relative size leaves.

| SIZE | VARIETY |
|--------|---------|
| Small | "Amsoy" |
| Medium | "Bonus" |
| Large | "Anoka" |

PLANT TYPE: The following varieties may be used as a guide to identify the plant type.

| TYPE | VARIETY |
|--------------|------------|
| Slender | "Vansoy" |
| Intermediate | "Wirth" |
| Bushy | "Adelphia" |

EXHIBIT D

DELTA AND PINE LAND COMPANY'S APPLICATION FOR DELTAPINE 566Additional Description of the Variety

Deltapine 566 is a group VI maturity soybean variety which matures at least four days later than Tracy M. In some locations, the period between the time of maturity of Tracy M and that of Deltapine 566 can be even longer. Deltapine 566 has white flowers, a tawny pubescence and a tan pod wall. The leaves of Deltapine 566 are elliptical in shape. The foliage color of Deltapine 566 is medium green and very similar to that of Tracy M. The seed coat is quite dull and the seed coat color is light yellow. The hilum color is black. The seed of Deltapine 566 (3,047 seed per pound) is similar to Tracy M (3,007 seed per pound) in size. Deltapine 566 is higher in protein content (42.2%) than Tracy M (40.9%). Deltapine 566 (19.9%) is similar in oil content to Tracy M (19.6%). Deltapine 566 exhibits hypocotyl resistance to races 1 and 2 of Phytophthora megasperma which causes Phytophthora root rot. Deltapine 566 is resistant to Diaporthe phaseolorum var. caulivora which causes stem canker (Table D I 57). Deltapine 566 (88.1 cm) is similar in height to Tracy M (85.6 cm).

As stated above, Deltapine 566 has white flowers. Deltapine 566 has up to one (1) plant with purple flowers in 700 plants. Deltapine 566 has a tawny pubescence with up to one (1) plant with gray pubescence in 700 plants. Deltapine 566 has a black hilum with no more than one (1) seed in 700 with a color other than black.

EXHIBIT E

DELTA AND PINE LAND COMPANY'S APPLICATION FOR DELTAPINE 566Statement of Basis of Applicant's Ownership

Delta and Pine Land Company owns the variety Deltapine 566 as this variety was developed by Delta and Pine Land Company. The cross was made by Delta and Pine Land Company personnel and subsequent selection and testing which led to the decision to release Deltapine 566 were conducted by personnel of Delta and Pine Land Company.